

INTRO

Can listeners distinguish heritage speakers from speakers living in a community where the language is still spoken?

Born in Hong Kong or Canada? Can you tell where a speaker is from?

Heritage Language Variation and Change

Florence Chan, Kaylee Tang, University of Toronto Mississauga

Auditory Experiment: Methodology

Materials: Recordings of Cantonese

- Sentences taken from interviews that were part of the HLVC project (Nagy 2009)
- Speakers were part of 3 groups:

HK	Born and raised in Hong Kong, currently resides there
G1	Born in Hong Kong, moved to GTA after age 18
G2	Born and raised in GTA (children of G1)

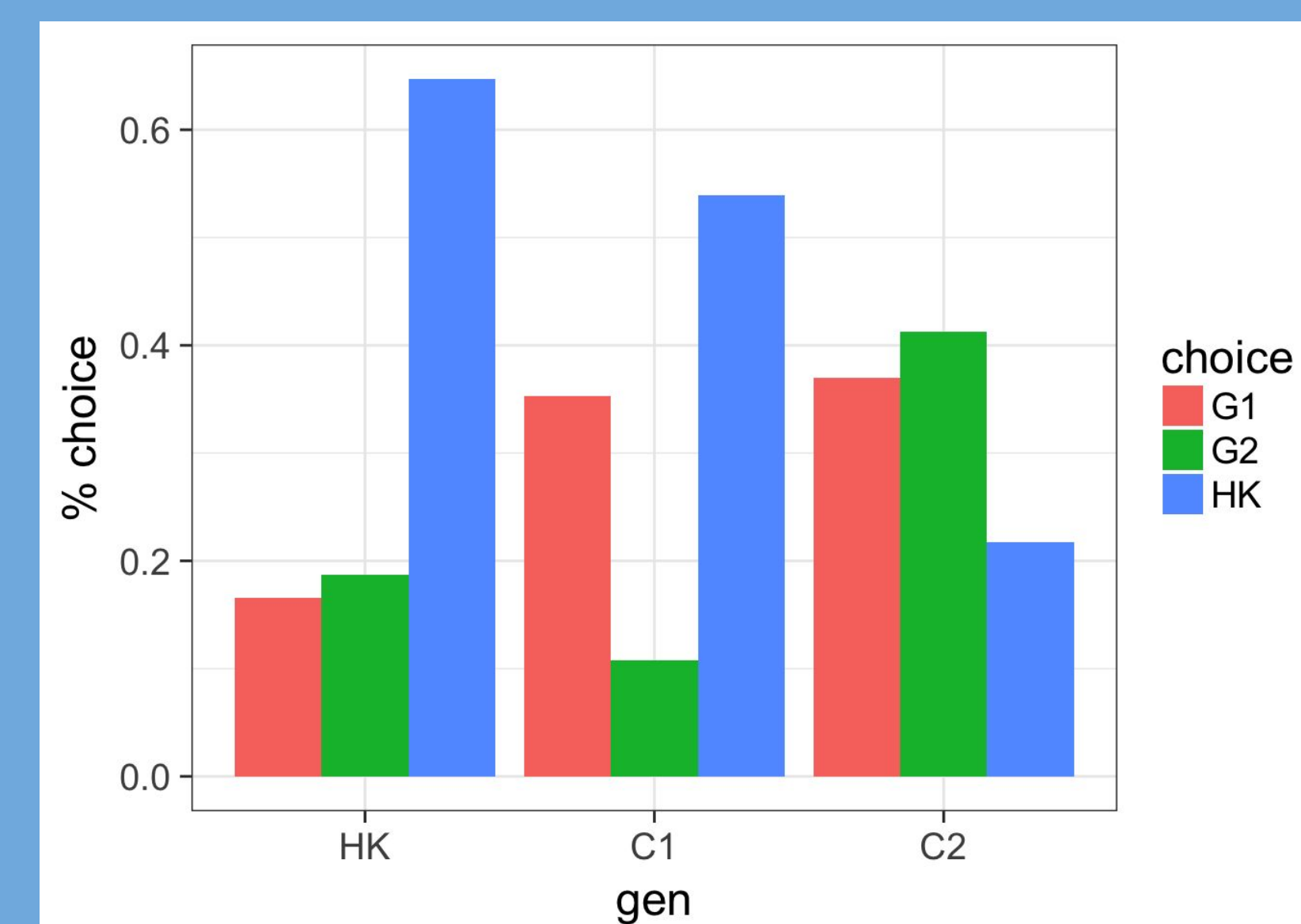
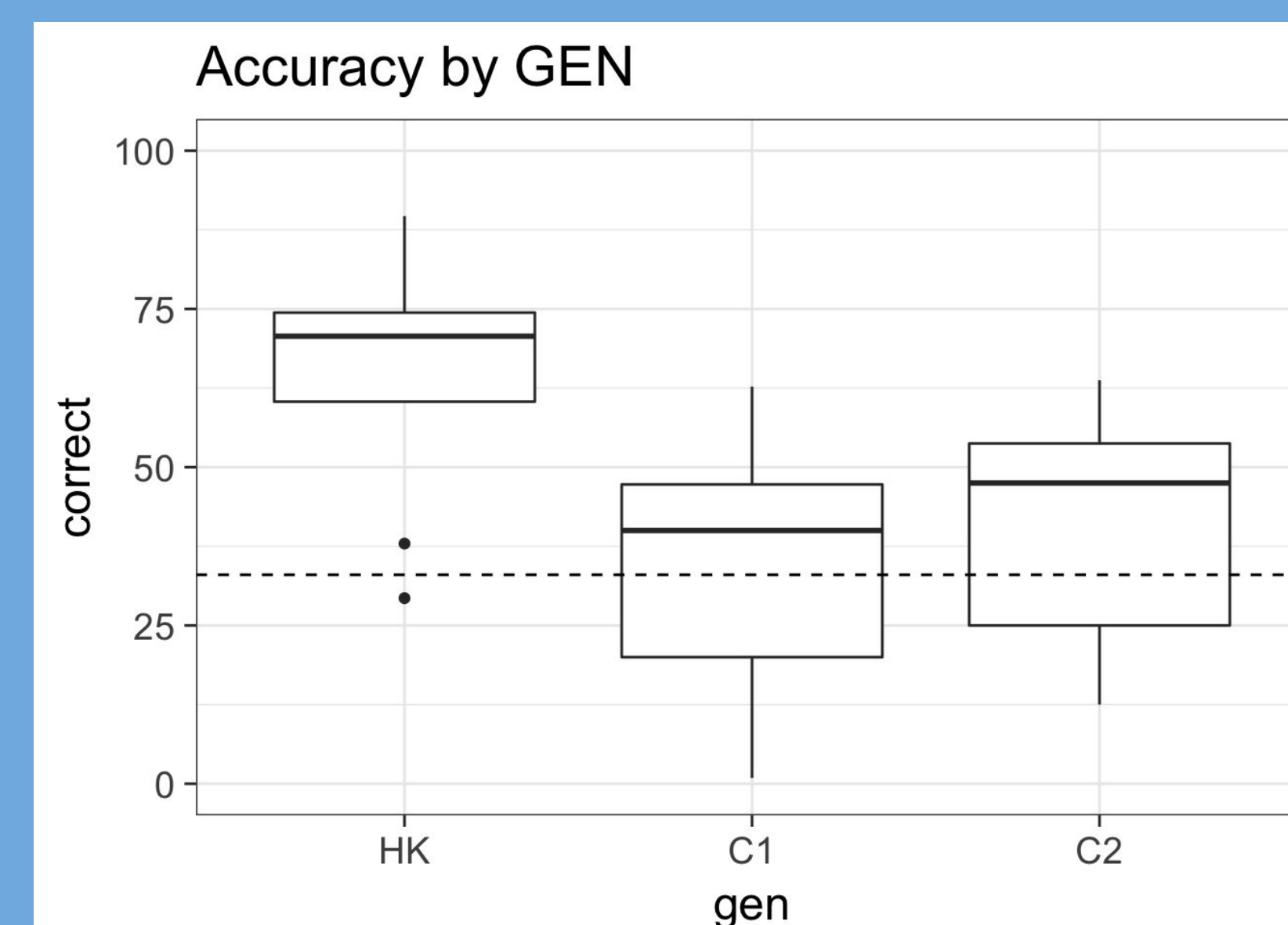
Participants

- 10 participants from UTM with diverse language backgrounds
- recruited through PsychEd website
- Speak 2-5 languages
- Understand Cantonese

Procedure

- listeners heard each sentence and were asked to decide which group the speaker was from

Results



ACCURACY OF LISTENERS

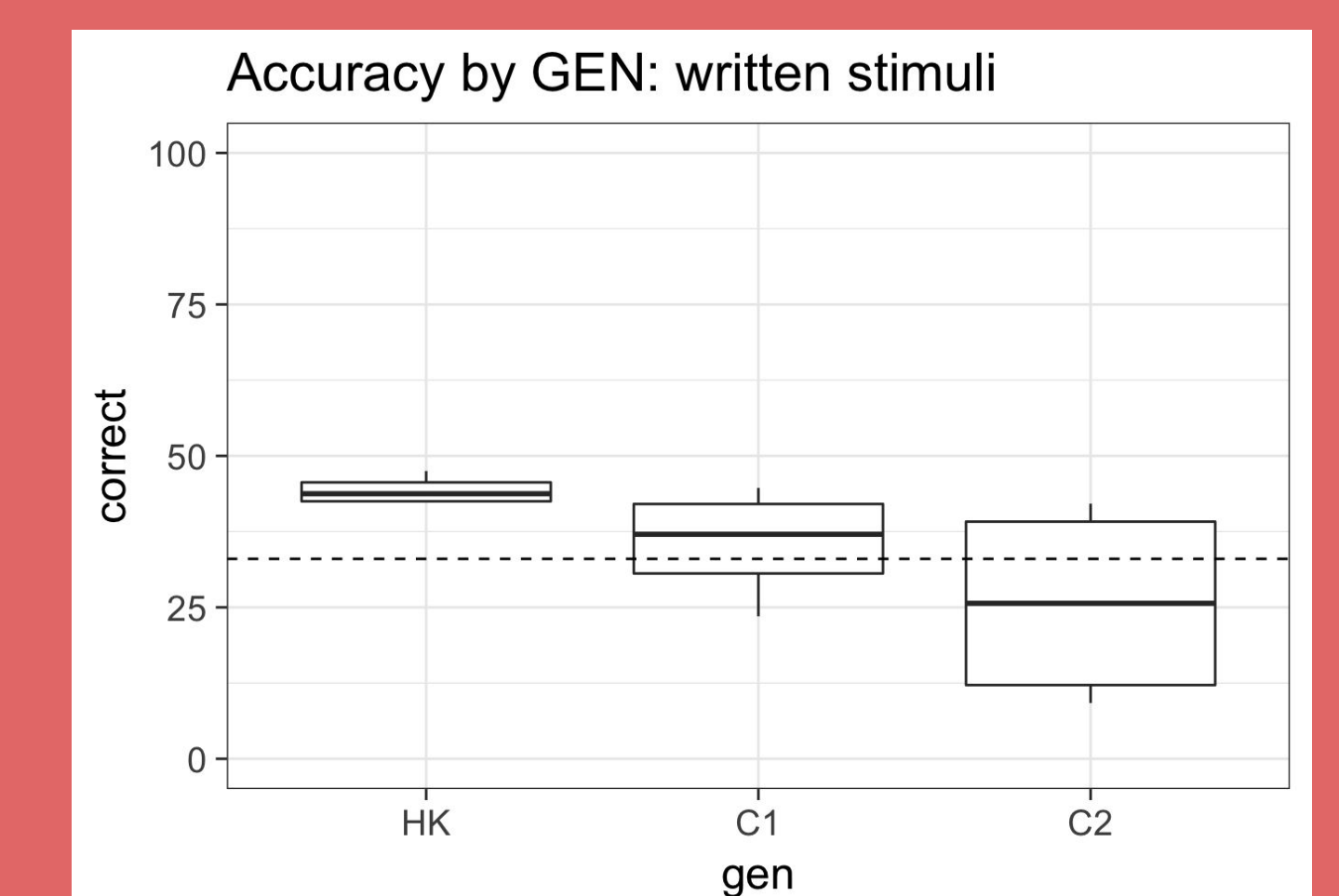
- Participants were able to identify HK speakers above chance
- Participants had more difficulty identifying G1
- Participants had the most difficulty identifying G2

ERRORS MADE BY LISTENERS

- Participants were most likely to identify G1 speakers as HK speakers
- G2 speakers were rarely identified as HK speakers or G1 speakers
- Participants had the most difficulty in identifying G2 speakers.

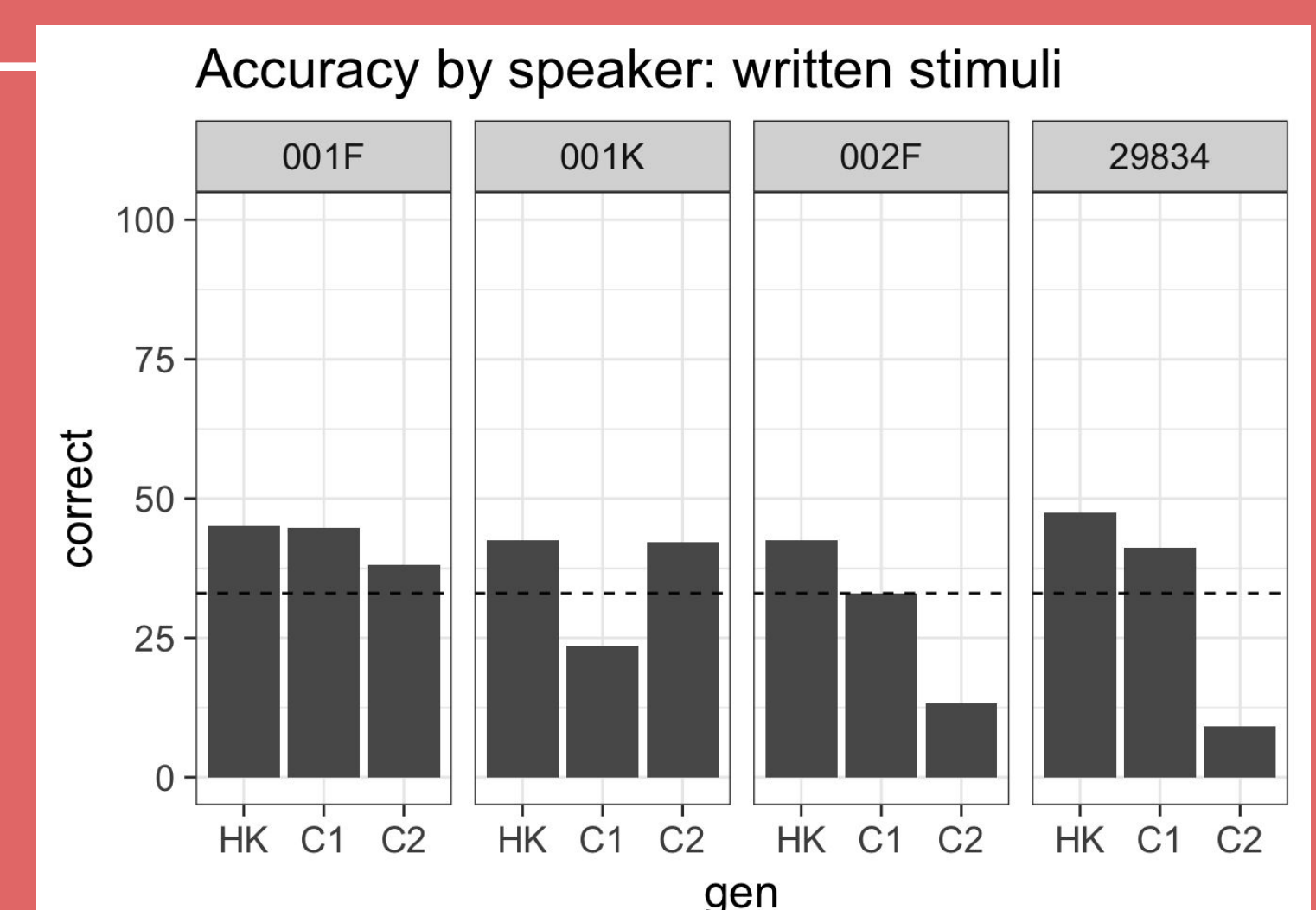
Written Experiment

- Procedure: Same as the Auditory experiment, but instead of hearing sentences, participants read written transcriptions of the same sentences.
- The experiment was run on a limited number of participants and is still undergoing changes.
- This experiment aims to determine if participants are able to distinguish between speakers using the content of their sentences rather than accent/other perceptual qualities.



Results/Discussion:

- Participants were able to identify speakers above chance most of the time, however, only the results for HK speakers are consistent across participants. Some modifications still need to be made for the written experiment.



Acknowledgements

Thanks to Crystal Chow, Justin Leung, and Winky Tsang for help with experiment design and stimulus preparation, as well as the following research assistants for help with data annotation:
http://projects.chass.utoronto.ca/ngn/HLVC/3_2_active_r_a.php#cantonese_fieldworkers. This research was funded in part by SSHRC Standard Research Grant 410-009-2330 (2009-12) and SSHRC Insight Grant 435-2016-1430 to (2016-20) to Naomi Nagy, and the Research Opportunity Program at the University of Toronto Mississauga.

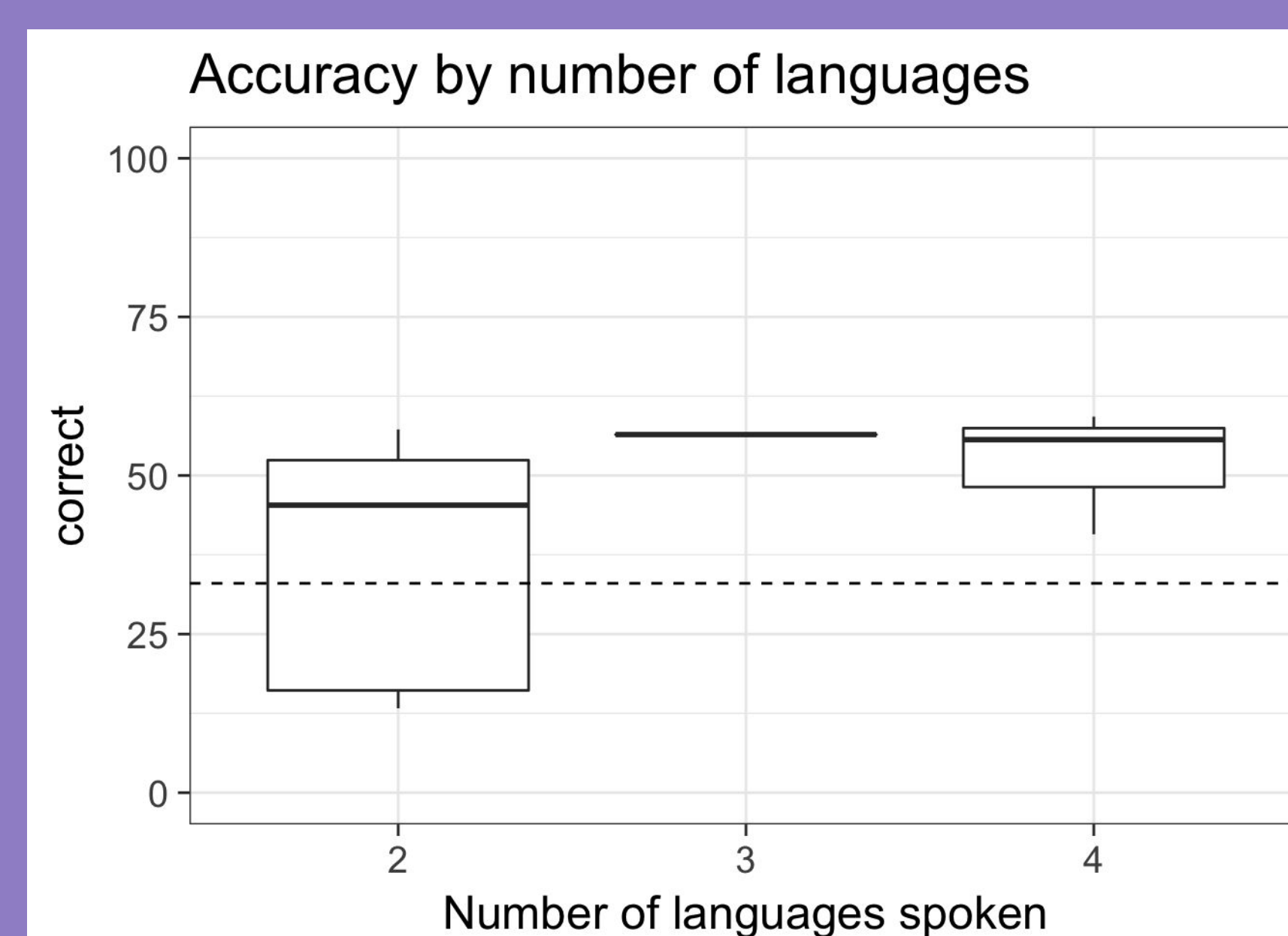
Research Questions

- Can speakers of Cantonese identify if other speakers are native speakers, 1st generation, or 2nd generation heritage speakers?
- What perception qualities do listeners use to classify other speakers?
- Are judgments based on the speech itself (i.e. accent) or the content of what people are saying?

Hypothesis

The difference between heritage speakers and native speakers of Cantonese is perceptible and could be related to tone, pitch, rhythm or content.

Discussion



- Language background information for listeners reveals that participants who have a more diverse language background might have some advantage when it comes to identifying the language background of speakers

- Hong Kong speakers were most accurately identified by participants
- G1 speakers were not identified correctly for the majority of the time and were most often mistaken as Hong Kong speakers
- G2 speakers are usually identified as G2 or G1
- Listeners who speak more languages seem to be better at distinguishing where speakers are from
- Hong Kong speakers are most obvious, but listeners might be confusing HK and G1 because language stabilizes after 20
- Listeners may hear G1 speaker at home and assume that's what Hong Kong speakers sound like
- Comparison of the auditory and written experiment shows that listeners' judgments don't seem to be based on content alone, but also on the characteristics of pronunciation. Future work will try to tease apart which specific aspects of the pronunciation are used.

- **Speaker hypothesis:** HK speakers are localized, G2 speakers have diverse language backgrounds and so cannot be identified easily